

New Meets Old: HDPE at The Country Club
Bill Spence
Director of Grounds









June, 1985







Tanto Irrigation 1985







88th U.S. OPEN CHAMPIONSHIP



START		HOLE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	MESSAGES
	LEADERS	PAR	4	3	4	4					5	4	4	4	4	5	4	3	4	4	
0	FALDO		0	0	1						0	0	1	1	2	1	2	2	3		
0	STRANGE		0	0	0	1					1	1	1	0	1	1	0	0	0		



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Phil Sheldon/Popperfoto





• ***January, 2008***





Age and Rust







Major Decisions to be Made in 2008 with US Am Scheduled in 2013

- ***Goals***
- ***Budget***
- ***Scope***
- ***Designer and Contractor***
- ***Equipment***
- ***Schedule***
- ***Relationship to Golf Calendar***
- ***Future Course Changes***



Goals

- ***Longevity and Integrity***
- ***Enhanced Coverage***
- ***Enhanced Controls***
- ***Improved Efficiency***
- ***Installation Friendly***
- ***Minimize Interference with Golf***
- ***Maintenance Reasonable***
- ***Integrated Installation***
- ***Reduce Potential Alteration \$\$***



Participants and Equipment

- ***Aqua Agronomic Solutions***
- ***3000 GPM Flowtronix VFD Pumps***
- ***DAF Services***
- ***Tanto Irrigation***
- ***Toro & Turf Products Corporation***
- ***Toro Delivery and Controls***
- ***Hanse Golf Design***
- ***DR11 HDPE***



Why HDPE???

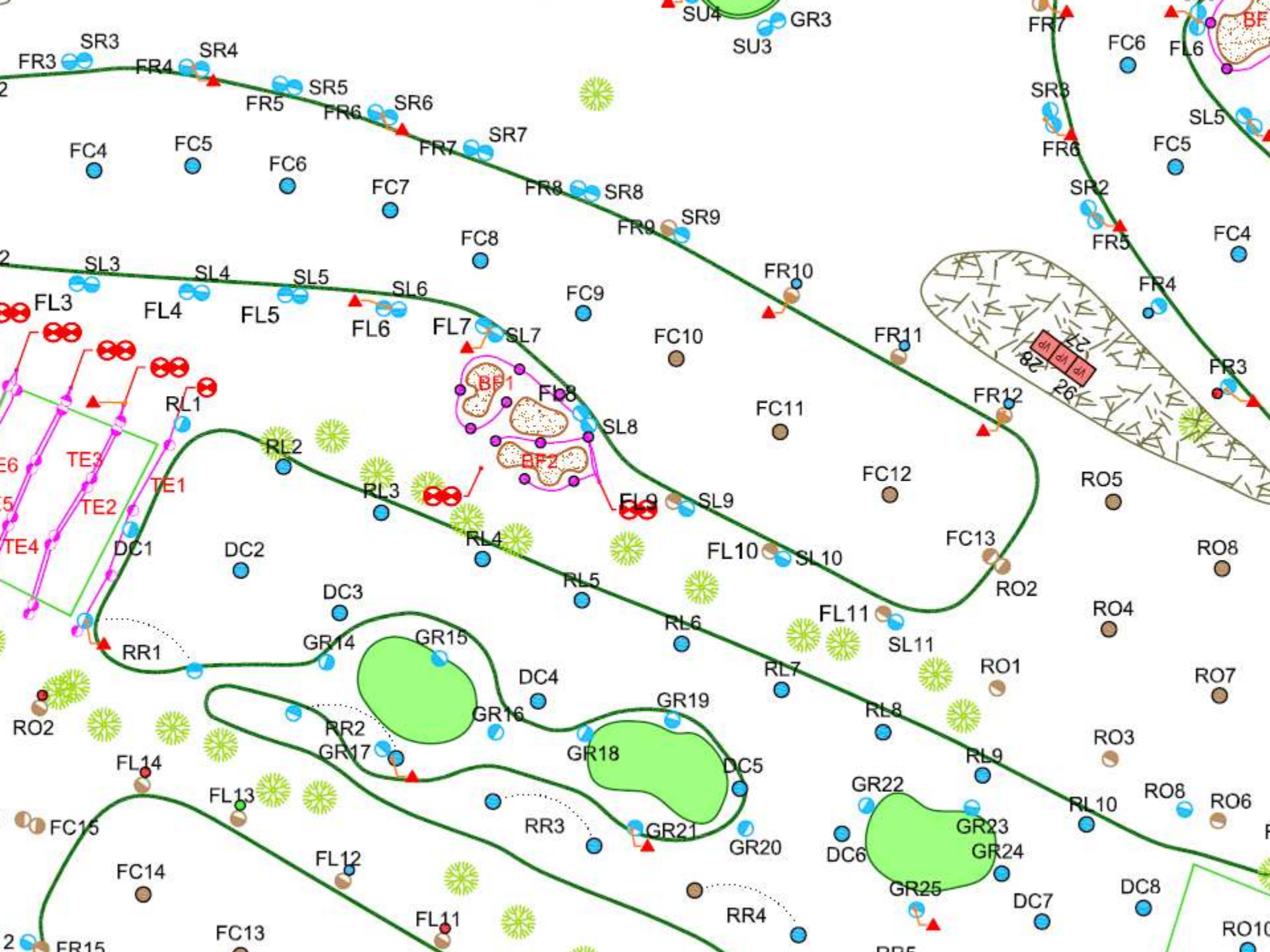
- ***Fusion vs Gaskets, Glued Fittings***
- ***Durable for Convenient Installation***
- ***Resists Frost Heaving Related Issues***
- ***Self Restrained and Thus No Thrust Blocks***
- ***50-100 Year Life Expectancy***
- ***Less Surge Related Fatigue***
- ***Environmentally Sensible***





located on the as







• ***November, 2009***



Pumphouse Replacement





Concrete Wet Well





2009 11 12













Creating Multi-Purpose Facility Makes Selling the Program Easier

New Pump House Added Benefit





August, 2010



Organized For Efficiency and Success









Adapting for Difficult Conditions





Tanto Fusion Equipment





TCC Fusion Equipment

Honda Generator



Friamat Processor





TCC Fusion Equipment

McElroy Heater



McElroy Pit Bull













1985 System

- ***Aging Pumping System and Rust***
- ***Deteriorating Metal Fittings***
- ***Operational Issues with Valves***
- ***Presence of Thrust Blocks***
- ***Aging Delivery Equipment***
- ***Less Efficient Control System***
- ***Less Coverage***
- ***10 Hour Water Window***



2010 System

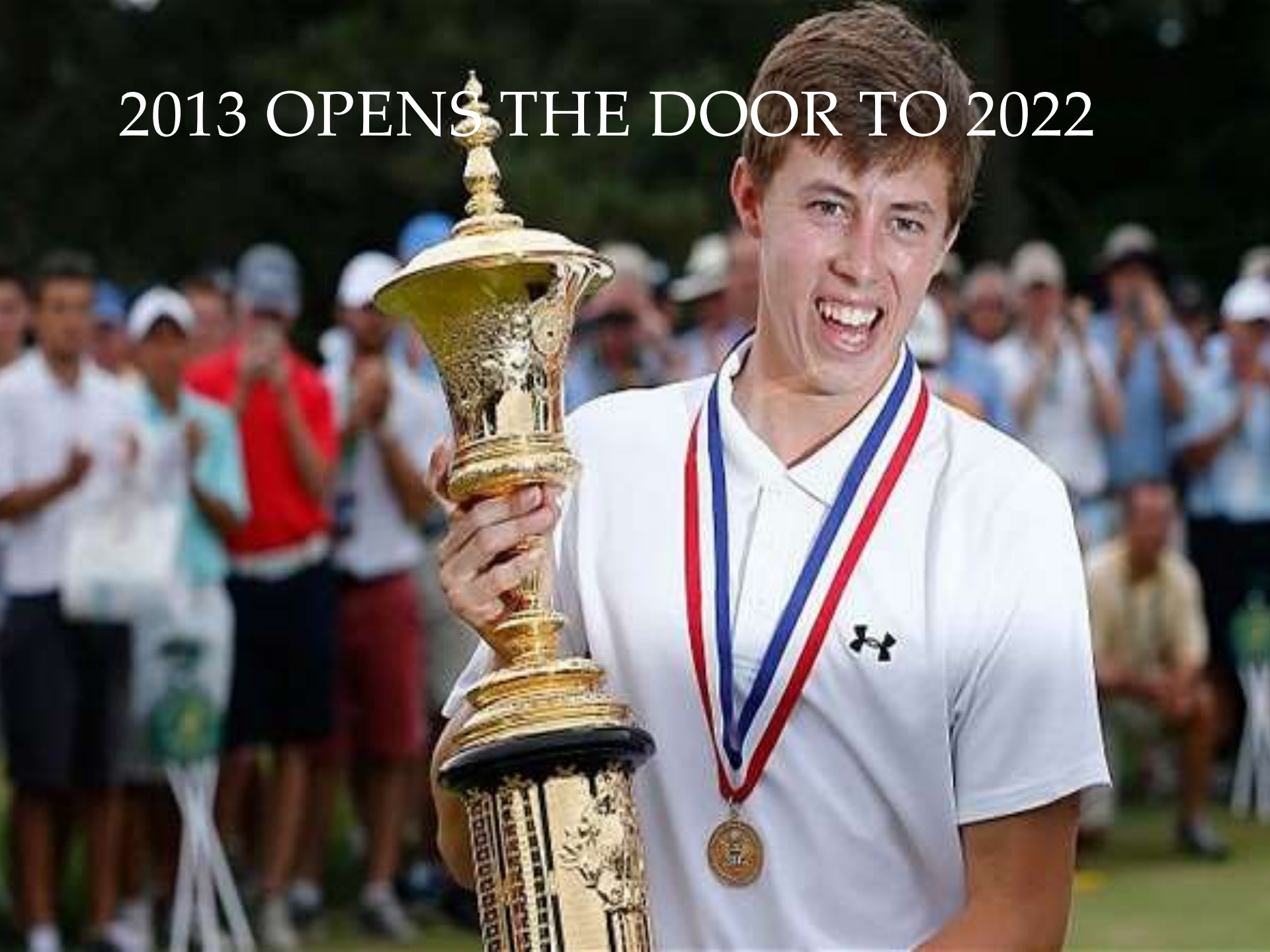
- ***Maximized Life of Installed Pipe***
- ***No Thrust Blocks***
- ***Tremendous Flexibility***
- ***Great Installation in Rock***
- ***Fewer Fittings***
- ***Minimized Metal Components***
- ***Easy Add-Ons***
- ***3-4 Hour Water Window***
- ***Expanded and Efficient Coverage***
- ***No Leaks !!!***



Accomplishments

- ***Project Completed On Time***
- ***Under Budget***
- ***Great Partnership Programs Developed***
- ***Positive Public Relations with Members***
- ***No Interference with Golf***
- ***No Interruption to Normal Ops***
- ***Enhanced Efficiency and Control***
- ***No “Daylight” Irrigation Programs***
- ***Enhanced All-Around Reliability***
- ***No pipe or Fitting Failures***

2013 OPENS THE DOOR TO 2022



2022

The Country Club

2023

Los Angeles C.C.

2024

Pinehurst No. 2

THE U.S. OPEN

USGA

